

ABSTRACT OF THE DISCLOSURE

A rate control system is provided for a link between a first node, such as an RNC and a second node, such as a Node B, within a wireless communications system where at least one user is provided a rate over the link as a function of link load. For example, the rate control system sets at least one user to a reduced rate on the link as a function of the rates of a plurality of users on the link. In certain embodiments, the rate control system controls the rate by selecting the size of a transport format block used to transport data for a user over the link during a transmission interval. The size of the transport format block can be selected by changing the number of transport blocks used to form the transport format block as a function of the total user data to be transported over the link at that time. The rate of data offered to the link can be controlled by the way user data is mapped into the transport format blocks used to send user data over the link. In a current UMTS systems, as long as the data present in a particular RLC buffer exceeds the size of the largest TFB, the largest TFB is used to pass the data to the next layer. With the rate control system, the size of the TFB for a particular user is determined based on the current status of all the RLC buffers that have data to transmit. If there is more data than the Iub link can carry at that point in time, then smaller TFBs are used for some of the users such that the aggregate traffic offered remains below the sustainable rate.